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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/073,171 | 02/13/2002 | Roger Spink | 016790-0458 | 4719 |
| 22428 | 7590 | 05/05/2004 | EXAMINER | |
| FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007 | | | MONBLEAU, DAVIENNE N | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2878 | |

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,171

Applicant(s)

SPINK, ROGER

Examiner

Davienne Monbleau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/5/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 1, the phrase "frequency movements" is unclear. The specification on page 6 refers to frequency movements as the number of image changes at a particular X-Y coordinate in the specimen corresponding to the number of times an instrument's tip contacts that coordinate. However, the claim language reads as if the specimen in the plurality of regions is moving at a particular frequency/occurrence. Although claims are read in light of the specification, one of ordinary skill in the art must be able to understand the claim language independently from the specification.

Claims 2-18 are rejected as being based on an indefinite base claim.

Information Disclosure Statement

The IDS filed on 2/13/02 has been acknowledged and a signed copy of the PTO-1449 is attached herein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leblans (US 2003/0142398) in view of Hughlett (US 5,239,170).

Regarding Claim 19, *Leblans* teaches in Figures 2 and 3A-3C an apparatus for automatically focusing an optical system comprising a detector analysis unit (50), an autofocus system unit (70), a focusing device (72), and a displaceable objective (14), wherein the objective is adapted to be automatically moved vertically in response to a signal (34) corresponding to a vertical height (d1) between a target region (16) of a specimen and a reference point (23), wherein the detector analysis unit is adapted to send a signal to the autofocus system unit corresponding to the vertical height of the target region, wherein the autofocus system unit is adapted to measure a focus height (page 7 paragraphs [0074] – [0075]), wherein the autofocus system unit is adapted to compare the focus height to the vertical height (page 7 paragraphs [0074] – [0075]) and yield an output corresponding to said comparison (34), and wherein the focusing device (72) is adapted to move the objective (14) vertically in response to the output of the autofocus system unit. The vertical movement of the objective is parallel to the optical axis of the light irradiated on the target region (16). *Leblans* does not teach using an image sensor analysis unit for said autofocusing. *Hughlett* teaches in Figure 1 an apparatus for automatically focusing an optical system comprising an image sensor analysis unit (26, 28, 30), wherein data from the image is analyzed to determine the optimal focusing position and automatically adjust the objective (18) via a focusing device (32). It would have been obvious to one of ordinary skill in the art to use an image sensor analysis unit in *Leblans*, as suggested in *Hughlett*, because such

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imaging devices (CCDs) have a reduced sensitivity to image plane optical property variations, which would result in more accurate focusing of said objective.

Regarding Claim 20, *Hughlett* further teaches in Figure 1 that said image sensory analysis unit comprises a computer (signal processor 28).

Regarding Claims 21 and 22, *Hughlett* further teaches in Figure 1 that the computer (28) is adapted to detect and analyze changes in electrical signals corresponding to distinct regions (top, center, and bottom AOI) of the specimen (column 4 lines 26-47). CCDs inherently output electrical signals to create images.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Fairley et al. (US 5,783,814)* teaches an automatic focusing apparatus using an area scan in which the largest value of an electronic focus signal at a set of points within an area of the target is recorded and then used to estimate the focus position of the target. *Baer (US 6,580,062)* teaches providing automatic focus adjustment by detecting noise variations in images. *Frost et al. (US 5,647,025)* teaches autofocus comprising an image analysis unit. *Katz et al. (US 6,172,349)* teaches an automatic focusing apparatus comprising designating areas within a field of view, measuring intensities at subareas within the designated areas, and then using the subareas for focusing the device. *Price et al. (US 5,790,710)* teaches an autofocus system comprising comparing various characteristics from at least two images taken at different vertical positions. *Czarnetzki et al. (US 2003/0164440)* teaches an autofocus device comprising comparing the position of maximum intensity of an image to a position corresponding to the focus position.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 571-272-1945.


The examiner can normally be reached on Mon-Fri 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Davienne Monbleau

DNM


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